

NOV 1 1946

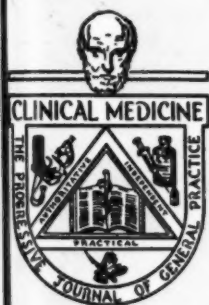
Medical Library

# C LINICAL MEDICINE

## LEADING ARTICLES

Page

Recurrent Appendicitis and Lesions of the Urogenital Tract: Differential Diagnosis....	279
Recent Developments in Bronchial Asthma Therapy .....	281
The Private Practitioner and the School Health Program .....	285
The Treatment of Diabetic Coma (Severe Ketosis) .....	288
Surgical Diseases of the Colon and Terminal Ileum .....	289
Seminar Problem .....	290
Pictorial Section: Colles' Fracture .....	291
(Pictorial Graduate Course Symposium)	
Editorials .....	299



OCTOBER  
1946

COMPLETE TABLE OF CONTENTS ON  
ADVERTISING PAGE FOUR

Copyright 1946  
by The American Journal of Clinical Medicine, Inc.

VOLUME 54

NUMBER 10



# 4:11 ALARM

Preoperative nervousness is multiplied by a sleepless night. Realizing this, many careful surgeons routinely prescribe Nembutal, 1½ grs., the evening before, in addition to the one or two 1¼-gr. capsules commonly ordered about an hour before surgery. These men know that the patient prepared in this way arrives in the operating room with fear and nervousness largely allayed, permitting smoother induction of anesthesia and quieter operating procedure. They know the marked *clinical safety* of Nembutal, a feature due partly to the brief action of the drug, which permits rapid recovery, and partly to a dosage only about one-half that of most barbiturates, which greatly reduces the amount of drug to be eliminated. Do you and your surgical patients now enjoy these advantages? If not, your prescription or hospital pharmacy will be happy to cooperate in making them available . . . TODAY.

ABBOTT LABORATORIES, North Chicago, Illinois.

## NEMBUTAL

REG. U. S. PAT. OFF.

(Sodium Ethyl(1-methyl-butyl)barbiturate, Abbott)

## Recurrent Appendicitis and Lesions of the Urogenital Tract: Differential Diagnosis

By JOSEPH A. LAZARUS, M.D.  
New York City

THE differentiation between recurrent attacks of appendicitis and a lesion in the urogenital tract is often a matter of great concern to the surgeon as well as to the physician. The common conditions which may simulate appendicitis are: (1) lesions of the right kidney or right ureter, (2) vesical diverticula, and occasionally in men (3) lesions in the right seminal vesicle; (4) right undescended testis; (5) movable right kidney (with intermittent hydronephrosis).

Any disorder in the right kidney which causes pain radiating down the course of the ureter may lead to confusion in diagnosis. The common causes of renal pain are: (a) *calculi* situated in the renal pelvis or calices; (b) *acute hydronephrosis* resulting from intrinsic or extrinsic causes; (c) passage of blood clots through the ureter, (d) *perinephritis*, especially when it involves the twelfth intercostal or the ilio-inguinal nerve.

The passage of a ureteral calculus may cause symptoms suggestive of appendicular colic. Diffuse or localized *ureteritis* or *periureteritis*, especially where the affected ureter is contiguous to a retrocolic appendix, may produce a symptom complex suggesting appendicitis.

A deep-seated *vesical diverticulum* lying adjacent to the right ureter may compress it causing right lower abdominal quadrant pain, simulating appendicular colic. An infected diverticulum may become adherent to an appendix situated in the lower part of the pelvis, resulting in periappendicitis and appendicular pain.

Acute right *seminal vesiculitis* may cause pain in the right lower abdominal quadrant which closely mimics appendicitis. *Periureteritis* of the lower part of the right ureter is usually the cause

and results from contact with an infected seminal vesicle which is situated in close proximity to it.

Of prime importance in making a conclusive diagnosis are

1—*The history*: An attack of acute appendicitis frequently produces a characteristic syndrome. Pain ordinarily commences in the epigastrium and subsequently localizes in the right lower abdominal quadrant. Vomiting often follows the onset of pain.

A patient with an attack of ureteral colic complains of pain in the loin radiating to the groin or testis. The temperature is usually within normal limits; and vomiting is an inconstant symptom.

2—*Temperature*: The temperature during an attack of acute, uncomplicated appendicitis usually varies between 98.6 F. and 101° F. In urologic disorders, the temperature is extremely variable. Where the cause is calculus uncomplicated by pyelitis, the temperature is rarely elevated. In urogenital infections, the temperature is high and often "spiking" in character.

3—*Objective signs*: Tenderness in the McBurney area is the characteristic feature in acute appendicitis, while costo-vertebral tenderness is frequently elicited in diseases of the kidney.

Briton recently described a suggestive sign in appendicitis. By palpating lightly over McBurney's point, a distinct contraction of the right cremasteric muscle occurs. Dixon found this sign positive in 100 per cent of patients suffering from gangrenous appendicitis.

Ben Asher (1943) described the so-called "cough sign" of acute appendicitis. By placing the tips of the fingers under the left costal margin in the region of the spleen and requesting the patient to take a deep breath, to exhale and then to cough, he will invariably point

to the site of the appendix when it is acutely inflamed.

Rovsing's sign is also of value in the differential diagnosis. Steady pressure is made over the pelvic colon with a consequent filling of the cecum by gas. If pressure on the left, lower abdominal quadrant corresponding to McBurney's region, causes pain in the right iliac fossa, it is highly suggestive of acute appendicitis.

A careful digital rectal examination, an indispensable part of all physical examinations, readily rules out acute seminal vesiculitis.

**4—Laboratory data:** Leukocytosis is more frequently revealed in acute appendicitis than in non-infectious conditions of the kidney. In urinary infections it is of little aid in differentiation, because the leukocyte count is elevated in both conditions.

Urinalysis, which should be routinely done, is of extreme importance in the differential diagnosis. The presence of red blood cells, with or without leukocytes, calls for urologic investigation, regardless of any apparent urgency. Cells in the urine are rarely found in appendicitis, unless the inflamed appendix is situated behind the colon and is in direct contact with the ureter. In women, urine should be obtained by catheter.

*Absence of cells does not rule out a urinary tract lesion*, since the ureter of the affected kidney may be completely occluded.

Hematuria, pyuria, or both may occur in acute appendicitis as a result of di-

rect spread, and involvement of the bladder wall. The localized inflammation of the vesical mucous membrane, or actual inclusion in an abscess may cause the hematuria. Thus, blood or pus in the urine does not necessarily exclude the possibility of acute appendicitis, and furthermore, there are examples of early acute appendicitis with slight hematuria or pyuria. The appendix may rest against the right ureter or on the bladder dome. An indication that the appendix is unruptured is furnished by the elicitation of epieiritis hyperesthesia in Sherrin's triangle.

**5—Special examinations:** Roentgenography should be carried out when the diagnosis is in doubt because it may show a radio-opaque calculus on a scout film, or an hydronephrosis revealed in a pyelogram.

Cystoscopy is also indicated in patients with symptoms suggestive of urinary tract pathology. This should at least include the passage of a catheter into the right ureter. An obstruction to the passage of a catheter, particularly when associated with urinary retention in the right renal pelvis, regardless of roentgenograms or microscopic evidence of cells in the urine, signifies a renal pathologic change and indicates further investigation before resorting to surgery. In view of the fact that cystoscopy is a rapid procedure if expertly carried out, and entails little or no risk to the patient, its more general use in questionable conditions would aid greatly in eliminating unnecessary surgery.

### FOR RATIONALIZERS

Drinking has become a universal function, a universal panacea, a medium of merrymaking and a solvent of sorrow. The liquid is consumed as omnipotent for "eye-opener" and for "nightcap," for bracing one up or for relaxing one, to increase appetite or to aid digestion, to relieve sickness or to stimulate health, to celebrate at a baptism or to console at a wake. This multitudinous and metaphysical reasoning points to the real underlying quality which drink possesses, that in the alcoholic fog one finds exactly what one seeks or boldly defies what one fears.—*The Journal of Nervous and Mental Diseases*, September, 1945.

# Recent Developments in Bronchial Asthma Therapy

By EDWARD E. EDMONDSON, M.D., Amarillo, Texas

THE therapy of bronchial asthma has recently undergone a change in the hands of research workers in the subject. The use of intranasal applications calculated to restore the normal mucous membranes in appearance, size, function, resistance against substances to which previously they had been hypersensitive, known as allergens, has produced a remarkable demonstration of the effectiveness of such measures not only in the types of allergy which manifest by "shock organ" reaction in the nasal tissues, but to the most agreeable but entirely unexpected relief of the symptoms of bronchial asthma to which some forty percent of hay fever cases deteriorate after a few years of the nasal reaction. The writer's first case of seasonal hay fever to have an associated bronchial asthma yielded to the applications of Agcuzin compounds\* and before the nasal symptoms had cleared up the asthma disappeared. This was an astonishing result, not only not anticipated, but actually not credible, not to be believed, and for quite some time the writer supposed that the asthmatic symptoms would recur when subjected to the accustomed allergens which had caused this type of respiratory reaction for forty-six years, but this did not happen from 1929 until her death in 1940, at the age of 75 years.

In 1942, the writer of this paper received an anatomical chart emphasizing the causal relation existing between the nasal mucous membrane and the bronchial tree in the development of bronchial asthma from cases of hay fever. This chart was accompanied with a reference list of fourteen allergists on whose experience and writings this fact was based, that of the membranes of the allergic nose being the cause of the symptoms of "shock organ" reaction in the chest. (1)

The cases reported herewith are of several years duration since they have received any medication and the effects

are of a rather extended nature so far as the time element is concerned. These cases were given local applications to the nasal and retropharyngeal spaces by applications of the solution on cotton swabs or by filling the nose with the solution while patient was placed across the bed with head hanging off the side and the patient on the back. The solutions were poured in the nose from a 1 ounce all rubber ear syringe and patient instructed to breathe through the mouth while the solution was administered. In other cases the solutions were inserted into the nasal cavity by means of a thin cotton tampon, somewhat the shape of a table knife, and placed in position by means of a Jansen nasal forceps of the 6½ inch length, other sizes being too large or too small. Cases of small children as well as the aged are reported in this list of cases. Patients of all ages enjoy complete recovery after the solutions have been applied over sufficient length of time to effect a reduction in the intumescence, in the control of nasal discharge and in the sensitivity of the mucous membranes, as given in the reports from Emory University, Tulane University and Arkansas State University medical schools under rigid controls, beginning in a few weeks with recovery completed in three months.<sup>2</sup>

Bronchial asthma may be derived from hay fever as a sort of sequential complication in about 40 percent of hay fever cases, and in these cases restoration of the normal appearance to the intranasal mucous membranes has been accompanied by cessation of the bronchial asthmatic symptoms and this type of reaction of the bronchial tree is also witnessed in curative restoration of allergic sinusitis by the same solutions.

## "Nasal Disorders"

In 1934, H. L. Baum of Denver reported 89 percent of nasal disorders to be allergic in character. After making a ten year study of 100 children with sinus disorders, N. W. Clein of Seattle reported to the American College of

\*Product developed and manufactured by the ALLERGY CLINIC at Amarillo, Texas.

Allergists at the 1944 meeting in Chicago that 90 percent were allergy cases without admixture of disease, (this report appeared ten years after Baum's report). (3) (4) These cases are very frequently diagnosed as "infection of the sinuses," but as asthma follows hay fever to a large extent, so also since allergic sinusitis is so closely associated with the closed nasal ostia of hay fever, it is logical to suspect allergic sinusitis as a probable cause of bronchial asthma in the same manner as observed in hay fever cases.

It is therefore logical still to hope that where the sinuses are involved in allergic manifestations that an associated bronchial asthma might be improved by any measures which restore the sinus membranes to a semblance of normal, such as is accomplished by irrigations of the sinuses with this solution. Thus we are met by two anatomical areas influencing bronchial reactions by asthmatic symptoms which are antecedents of the asthma, and restoration of these areas to normal is accompanied by cessation of the asthmatic symptoms.

To the casual medical observer, it seems fantastic to suppose that shrinkage of the nasal membranes with development of tolerance to allergens, and cessation of excess nasal and sinus discharge can result in an improvement as radical as that observed, but Emory University research observers, Tulane research observers, and Arkansas University research observers have all noted the same effects, and have so reported. (2) (6) The advantages of this system of local intranasal therapy for sinus allergy was clearly and fully summarized in *Clinical Medicine* (Aug. 1944).

#### Case 1

Mrs. M. McC., age 65. Severe seasonal hay fever and bronchial asthma since the age of 19. Her only freedom from symptoms of nocturnal type of asthma was while living near the timber line in the Rocky Mountains which she did for 17 years during the height of the hay fever season. She reported having had the professional services of 42 physicians during that 46 years of affliction. She had also had some nasal surgery without relief. Her last resort was the

nightly use of stramonium smoking to secure sleep.

In 1929 she was given 26 intranasal applications of the Edmondson solutions with daily repetition. This shrunk the tissues involved in the nasal organ, and relieved completely the subjective symptoms. A report three years later stated that she was still free "from either sneezing or wheezing." No change of location or occupation occurred in this case.

#### Case 2

Miss N. B., age 50. Estivoautumnal hay fever with bronchial asthma complication since childhood. She had to suffer the full effects of each attack, not being economically able to change temporarily to a more friendly climate.

Her physicians had used all the recognized preparations in her case with only brief respite of the symptoms.

She was treated during the height of the pollinating season of 1930 with the intranasal applications above cited, and after two months faithful and regular use, her nasal, eye, and bronchial symptoms ceased and a letter received from her 12 years later states that her relief appears permanent.

#### Case 3

Mr. O. P., age 48. Occupation requires him to be in the presence of rank growths of weeds in Southern Illinois. He suffered severe symptoms of hay fever and bronchial asthma during that season and on until frost. He used all the medical care available to no practical relief. He gave a history of 15 years of such attacks, in 1930.

His relief became apparent after two weeks applications of the solutions and "permanent" after two months of daily applications.

A report from him in 1942 states that he has been free from any type of reactions of an allergic origin since the time he received the intranasal applications.

#### Case 4

Mr. F. B. H., age 60. Since early youth he had suffered from an increasing violence of hay fever and bronchial asthma of the seasonal type, due as determined by standard tests to ragweed and other plants. He became a railroad station agent later and found as the years wore



or that he was less able to care for his duties in eastern Missouri, and was accommodately transferred to another place on the line and soon had the same trouble and was again transferred to a higher climate and the disability soon manifested itself, he was then transferred to Colorado where soon the affliction was as severe as at any other point on the line. He then resigned his position and located a mile high above sea level and took up the occupation of merchandising. All these changes brought him no relief worthy of the name.

He received three months local intranasal applications in 1935 of the above mentioned solutions in graduated dosage and was called back to Missouri for settlement of an estate and was away visiting the places where he formerly suffered severely and at the end of the summer season had experienced no return of allergic symptoms of any kind.

#### Case 5

Mrs. M. M., age 40. History of seasonal hay fever and associated bronchial asthma for several years.

Patient received her applications rather irregularly on account of her work, but obtained 15 such applications between Apr. 16 and Aug. 27, 1937, and had passed through three seasons without recurrence of any allergic reactions at the last observation, in June, 1941.

#### Case 6

Miss R. W., age 25. Hay fever and bronchial asthma.

She received fifteen applications of the solution under discussion in the spring of 1937 and returned home to resume her duties in an office. In May 1945 she reported to the writer for examination of the nose which shows an open clean and natural colored interior and has no symptoms of either hay fever or asthma. This patient lives in a heavily laden section of the southwestern allergy belt of the U. S.

#### Case 7

Mr. R. R. L., age 45. Lifelong disorder of the nose, deflected septum to right with compensatory enlargement of the left inferior turbinate which was removed under the promise of easier breathing. This dried the left nasal pas-

sages but the right nostril continued to develop polypi, and the septum was deflected to the outer wall of the right nostril.

He suffered perennial hay fever and bronchial asthma and complete blocking of the right nostril, while the left nostril was dry and cavernous.

He received the intranasal applications (1942), after removal of the polypi, for a period of three months and the right nostril closure became less pronounced after that period. Last inspection of the case, one year later, revealed the air-passages on the right were open and the allergic symptoms had disappeared completely despite the fact that there had been no change of work or location.

#### Case 8

Mr. E., age 50. Farmer in Southern Oklahoma, raising the usual farm produce on a farm on which "Johnson grass" was also a heavy yield. Treatment for Johnson grass reactions had not resulted in benefit. Nose was closed on right side by deflection of the septum in the front one-third; polypi were found back of the deflection, these were removed, the solution applied (1942) back of the deflection and repeated daily for three months. The patient became busy with harvest and did not return for three months when inspection revealed that the right nostril had opened and breathing was free on each side. No sense of asthma or nasal allergy remained.

#### Case 9

Mrs. S. B. W., age 63. History of allergic conjunctivitis and bronchial asthma.

She received intranasal and eye applications (1942) three times weekly till she had taken 32 treatments and the eyes cleared up within four weeks, the asthma and the nasal intumescence was reduced to the normal in appearance and size. Two years of observation revealed her constant freedom from any recurrence of the allergic symptoms.

#### Case 10

C. C. C., age 67, Farmer. (1945, preliminary report) He has suffered from asthma and "sneezing" since a boy of 7 with gradual increase in the severity of symptoms.

Began his intranasal applications Feb.

19, 1945, at home but under physician's care and directions. Did not return to Clinic till May 9, 1945, when he reported that he had not felt any asthmatic or nasal symptoms in more than a month and that with the shrinkage of the tissues in the nose to normal and cessation of the viscid secretions in the nose and throat the asthmatic symptoms faded out. This case is still under treatment and will warrant another report, though it is the writer's experience that his present condition is one which has in all other cases remained free from further symptoms.

(The writer had this patient use the solutions at home under his directions and the obedience was so complete and the instructions so well understood by the patient that he did not feel it necessary to consult with his physician to "iron out any wrinkles" in therapy, which is often the case.)

#### Case 11

Master H. B., age 4. Began nasal and asthmatic attacks at some two years of age and has suffered increasing severity in symptoms with passing time and with very acute attacks at night. (1945. Preliminary report.)

Parents were instructed to drop the solution in both sides of the nose with patient resting on back and head thrown back. The resistance from the child at that age influenced them to compromise and to allow him to sit up while they "squirted" the first application into his right nostril and then the left, but were able to persuade the child to hold still only for the first injection, but not in

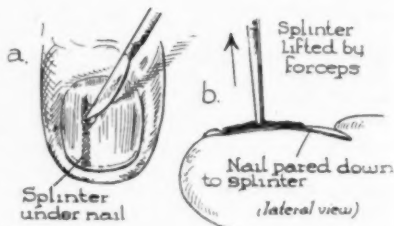
the left. After one month of this "compromise" they brought the child in with still some asthmatic symptoms but not so severe. Examination revealed an open right nostril and a severely closed left nostril. The parents admitted error in following instructions and promised to hold the child in the recumbent position while the mother inserted the dropperful of solution into the nose on each side. Three weeks later they reported that he has "no more spells with the breathing." This is an example well-known to every physician of the usual force necessary to accomplish an application to any small child's eyes, ears, nose or throat. This case will have a further report after treatment has been given for sufficient time to accomplish full transformation of the allergic appearances to those of normal structures.

#### References

- 1) Chart of the Gross Pathology of Acute and Chronic Bronchial Asthma, published by Professional Drugs, Inc., 1942.
- 2) *Texas S. J. Med.*, Jan., 1944, Recent Developments in Hay Fever Therapy, E. E. Edmondson.
- 3) *Arch. Otolaryng.*, Dec., 1934, Incidence of Allergy in Rhinologic Practice, H. L. Baum.
- 4) *Annals Allergy*, Jan.-Feb., 1945, N. W. Clein, A Ten Year Study of One Hundred Allergic Children from Birth to Ten Years of Age.
- 5) *Clinical Med.*, Aug., 1944, Recent Developments in Allergic Sinus Therapy, E. E. Edmondson, M.D.

#### Removal of Subungual Splinters

Use a Bard-Parker blade or a razor blade to pare down the nail overlying the splinter. This painless procedure is continued until the distal end of the splinter can be grasped with a forceps and withdrawn. The artist's sketches are slightly in error, as one needs only to pare down the nail toward its tip. A clot under the nail may also be drained in the same manner, or by drilling through the nail with a dental drill.—DERRICK J. MARTIN, F.R.C.S., in *Med. World* (Eng.) May 10, 1946.





# The Private Practitioner and the School Health Program

By RUTH E. GROUT, Ph.D.\*

Minneapolis, Minnesota

IN many communities today, the private physician holds a position of great responsibility in respect to the school health program. Often he is the only professionally trained health worker upon whom the school can depend for assistance in policy making or for direct health service.

According to figures of the United States Public Health Service, approximately one third of the communities of the United States lack any form of full-time public health service. This means that approximately 40 million of our population must depend upon the private physician for any health advice or health services they receive.

There are three principal ways in which the private physician can be of special use to the schools, first, through assistance in determining local school health policies, second, through provision of direct health services, and third, through health education of children, parents, teachers, and the community at large. In each of these areas he may work either independently or through his county medical society, depending upon the nature of the problem and the policy of the society.

School health councils to plan and carry out school health programs are now found in many schools through the country. There is urgent need for local physicians to serve actively on such councils. All too frequently, the busy physician is appointed to such a body and then finds it difficult to participate in its activities because of lack of time. Service on such a council will be repaid many times both through the personal benefit it may bring and through the knowledge that an important segment of the population is being helped. In communities where no such councils exist, physicians should encourage their

formation in every school. Assistance may be secured from the state education department or from the United States Office of Education.

Specific ways in which physicians may aid in school health work are summarized below.

## A. Assistance in determination of school health policies.

Regardless of the amount of local full-time public health service available, assistance from physicians and county medical societies is imperative in this area. Although many of the policies are determined by state regulations, their local application will necessarily vary with the resources available and with the attitude of the local medical profession.

Questions which private physicians should help to answer are

### 1. Policies in regard to communicable disease prevention and control.

a. Will clinics for immunizations or tests be set up? If so, where? Will they be free or will there be a fee? If a fee is charged, who will collect it, and how will the money be used? How can the clinic be planned so that it provides satisfactory services to the school and the parents, and at the same time is satisfactory to the physicians?

b. If immunizations and tests are to be made in the private physician's office, what fee system can be worked out so that every child has equal opportunity to receive help?

c. Will tuberculin testing or X-Ray programs be conducted, and if so, for what groups and by what personnel?

d. How may the communicable disease control program be made educational for the children? What help can the physician give the schools (as for example—printed material, talks etc.) to help teachers and pupils understand the importance of the program?

### 2. Policies in regard to emergency care for injuries and sudden illnesses.

\*Associate Professor of Public Health and Education, University of Minnesota Medical School.

Assistance to the school in setting up written policies in this respect, to include,

- a. First aid materials and procedures.
- b. What to do when no nurse is present.
- c. Policy for notification of parents.
- d. Policy for calling a physician in case of a serious emergency.

### 3. Policies in regard to physical examinations and follow up.

- a. How often will examinations be given? By whom? and where?
- b. What medical findings should be made available to schools, and how can these be recorded so as to be most useful to the teachers?
- c. What parts of the physical examination may be conducted by the teachers? (e.g. vision testing, weighing and measuring) by the nurses? (e.g. taking pulse, temperature, and blood pressure)
- d. What policy should there be for referral throughout the year of children thought to need medical attention?
- e. How can correction of discovered physical defects be assured? How should parents and family physician be notified? Who will pay fees and provide services for the needy?

### 4. Policies in regard to provision of healthful school environment.

What standards should be observed by the school? What assistance can be secured from state departments of health and of education, and from the local physicians, in respect to helping schools meet these standards?

### B. Provision of health services.

After the above policies have been determined jointly by schools, health departments, community members and representatives of the medical and dental professions, the services to be rendered by the profession will be made clear. The nature and scope of these services will vary with the resources of the community, and with the policy of the medical profession, but in general they will fall into the same categories as those given above, namely, communicable disease prevention and control; emergency care for injuries and sudden illnesses; physical examinations and follow up; and advice in regard to provision of a healthful school environment.

### C. Health education of children, parents, teachers and the community at large.

The private physician increasingly is recognizing his responsibilities as a health educator. In his day by day contacts with sick people, he sees that service alone will not assure recovery. There must be a willingness on the part of patients, based on understanding, to cooperate in measures essential for recovery. This willingness is gained through education. Moreover, he has discovered that the sick person is in a particularly favorable frame of mind to take advice and education. Some of the best health education occurs in the physician's office, at the clinic, in the hospital, or at the bedside at home. Unfortunately, there has been less exploration of the physician's opportunities in the health education of the well person to prevent unnecessary illness and disease.

In the field of school health, the physician may perform a very important service to the community through using educational approaches in his personal and professional contacts with children, and with their parents and teachers. His word is authority which holds much weight. Moreover his attitude when they seek his help will have an important bearing on their own health attitudes and activities.

In addition to individual health counseling, which should be a part of every service performed, the private physician may assist in organized group education activities. A few of the services in health education which physicians are being called upon increasingly to render are discussed below.

1. Assistance in selection of health problems upon which the school should concentrate in its health education program. The physician is in a position to know what problems are really urgent in the community, and he should take some responsibility to help schools to recognize these problems and to see that they carry on service or educational programs to help meet local needs.

2. Review of health literature used in schools to determine its accuracy and its applicability in the community. This is a time-consuming procedure which

might be undertaken as a project of the county medical society in cooperation with the school and any available public health personnel.

3. *In-service education of teachers.* Teachers increasingly are aware of their inadequacies to perform essential health functions. In many schools, study programs and meetings are devoted to the education of teachers in health matters. This is an economical way to extend health work in a community, and should be a field in which local physicians would readily participate.

4. *Service on a school or community health council.* The importance of this has already been discussed.

5. *Cooperation with health teaching programs.* In the schools of today, students frequently are active participants in health classes. Often they make surveys of school and community health problems, and take part actively in their solution. A sympathetic physician may be of great assistance to the students in talking over problems with them and giving them the benefit of his broad experience.

Physicians trained only in clinical med-

icine and surgery may feel the need for orientation in the field of school health before undertaking such functions as those suggested here. School health work is a specialized field demanding special preparation, as indicated by qualifications for school physicians recently set up by the Committee on Professional Education of the American Public Health Association.\*

County medical societies would provide a valuable service to their members if they would devote one or more meetings annually to some phase of school health work. Assistance in planning in-service education programs for physicians could be secured in most states from state departments of health and of education. Collateral with such planned programs of education should be the participation of each local physician in programs of planning and action for better school-child health. Through such participation he may learn along with school personnel and parents how best to serve the children of his community.

\*American Journal of Public Health, Proposed Report on the Educational Qualifications of School Physicians. Vol. 34, Sept. 1944. Pages 977-983.

## Mercurial Diuretics

If mercurial diuretics are properly used, as many patients with heart failure will be made comfortable as with digitalis. There is a large number of patients with early heart failure in whom symptoms are well controlled by mercurials, but in whom digitalis is of little benefit.

Mercurial diuretics may be given intravenously, intramuscularly, rectally or orally. Suppository administration is often uncertain in effect. Oral administration results in uncertain absorption, in addition to frequent colic, nausea and diarrhea.

*Dose:* The dose is variable. It is the least amount required to produce a significant increase in urine volume. As little as 0.5 cc. may be sufficient and the interval may vary from two days to a longer period, depending on the need.

Poisoning may occur in the course

of mercurial diuretics due to sensitivity to the mercury, dehydration from excessive and prolonged diuresis or from accumulation of mercury.

The first dose should not be of more than 0.25 cc. intramuscularly. In the event of fever, urticaria, or bronchiolar spasm within about an hour, another diuretic should be used from thence on.

If excessive diuresis is produced, one may give 2 Gm. of sodium chloride by mouth with each injection.

The intoxication resulting from the accumulation of mercury gives rise to salivation, stomatitis and diarrhea. This can be avoided by administering the mercurial only as long as a prompt diuresis results.

Albuminuria is not a contraindication. The clearest contraindication is acute diffuse glomerulonephritis.—HARRY GOLD, M.D. in N.Y.S.J.M. Jan. 1, 1946.

# The Treatment of Diabetic Coma (Severe Ketosis)

By G. W. HAIGH, M.D., Worcester, Mass.

**A**FTER diphtheritic anti-toxin was first accepted by the medical profession, it took many practitioners nearly a score of years to learn its specific value and to use enough of it in the shortest possible time. Though insulin has been available for the treatment of diabetic coma for more than twenty years, even many authorities upon diabetes have failed to use it amply and intensively. Why has their thinking in the administering of such a specific remedy been beclouded? They have been distracted from the simple conception of an emergent state of deficiency of a vital hormone by paying too much attention to the effects of that deficiency, namely, abdominal pain with vomiting, stupor, progressing into coma, dehydration, loose inelastic skin and Kussmaul breathing, together with a strongly ketotic breath. These are merely symptoms of a marked depletion of the store of insulin.

Now, in general, symptoms are dispelled by the removal of their etiologic cause. The more promptly they are relieved, the more promptly the cause is eradicated. In any emergency such as that presented by diabetic coma, the fewer things and the simpler the procedure one has to bear in mind, the better.

The simplest way to treat severe ketosis is to obtain a catheterized specimen of urine for the tests for sugar and acetone. Thereby the diagnosis is confirmed and the degree of acidosis determined. Rarely is less than a dose of 100 units of insulin indicated. Retain the catheter for constant drainage, unclamping for a few minutes whenever a subsequent specimen is needed.

In 15 minutes a second specimen can be collected, the tests repeated and another 100 units injected subcutaneously, unless the amount of acetone should have greatly decreased and the urinary glucose should have vanished. Let the urine continue to escape till about 15 minutes later, when the procedure is repeated with half the dose of insulin. Continue

this simple routine, being guided in the dosage of insulin and the intervals between doses primarily by the intensity of the reaction of the urine for acetone, until the patient regains clear consciousness. In general, in a scale of 4 for gauging the quantitative acetoneuria, 3 and 4 indicate to go fast—1 and 2 to go slowly, unless sugar ceases to be excreted in the urine, which is the sign to stop, at least temporarily, to avoid a hyperinsuline reaction.

After the patient has recovered consciousness intervals between doses can be lengthened and decreased. Even after this has occurred, there is still usually a considerable deficiency of insulin in the patient's body as indicated by the persistence of heavy tests for acetone. Only when other minor contributing causes for acetoneuria cease to be a factor, however, can one ignore a slightly positive test for acetone in the urine with complete safety. In severe diabetic ketosis, experience has shown that several hundred to more than a thousand units of insulin have been required to cure the patient of his lack of sufficient insulin.

It has not been recognized that in the utilization of the insulin administered to a comatose diabetic no small quantity of water is produced endogenously varying with the amount of insulin used in the metabolization of stored foods. This in itself tends to correct the dehydration and demineralization of the ketosis. This, in a measure obviates the intravenous injection of saline solution with possible undue strain upon the cardio-vascular system. When fluids can be given by mouth, the patient's thirst becomes a safe guide to the amount of fluids that are needed.

After the emergency has been met then attention can calmly be directed to any possible associated condition as a pyogenic or tubercular infection, cardiac or renal failure or hyperthyroidism. It is true that the very rare case of diabetic coma may present problems that may not yield to this simple method on account of coronary disease or renal

disease, but such a patient would probably die under the most favorable circumstances of hospital care.

With this simple plan many patients can be successfully relieved in their homes provided the attending physicians can afford the time to devote to them until the danger has passed. The facilities of the hospital can be dispensed with just as they have in the treatment

of diabetics in general. This method proved effectual even before the tests for ascertaining the  $\text{CO}_2$  combining power of the blood and the hyperglycemia were available in most hospitals, and before divers theories concerning the action of insulin and the treatment of the symptoms and signs arising from its deficiency obfuscated the prompt effective management of diabetic coma.

## Surgical Diseases of the Colon and Terminal Ileum\*

By FRANK H. LAHEY, M.D., Lahey Clinic, Boston, Mass.

**R**EGIONAL ILEITIS, is characterized by right lower quadrant pain, nausea, obstructive symptoms, weight loss and asthenia. It comes in recurrent attacks or chronically. A sausage shaped mass may be felt. A fistula to the outside or internally into the intestine or bladder may develop.

The terminal ileum is rigid and scarred as may be seen at operation or indicated by x-ray which shows a thin stream of barium trickling through the very narrow lumen ("string sign").

Do not operate during the acute inflammatory stage, while fibrin is deposited on the intestine. Wait for 6 weeks until the peritoneal cavity is vaccinated against infection. During the acute stage, the bowel is in a poor condition for manipulation.

**Surgical technic:** Do not carry lateral side tracking; remove the ileum and right colon at the first operation. Look up the small intestine to be sure that another area of ileitis is not overlooked. Local inflamed segments of bowel must be excised.

A modified Mikulicz operation with anastomosis of the ileum to the transverse colon may be carried out. A catheter is placed in the staggered loop for decompression.

### *Ulcerative Colitis*

In acute cases of fulminating ulcerative colitis, do not wait for an emergency. Ileostomy is indicated (1) when medical treatment has failed. (2) for massive hemorrhage. (3) subacute perforation

with abscess formation or peritonitis. (4) after two acute attacks, when the blood, pus and fever have disappeared. (5) obstruction of the colon.

In early cases, one may excise the segment of the colon or perform a colectomy. Colectomy may be indicated if the ileostomy is ineffective. The ileostomy is not surgically resolved unless the colon returns to normal, i.e. Haustrations reappear and peristalsis is evident, and the rectum is normal on sigmoidoscopic examination.

### *Management of the Colostomy*

It is a rare patient who can have normal stools with a colostomy. He should be told that it will take six months for him to learn how to handle his colostomy. Every second or third night, the patient must take ample time to irrigate through the colostomy opening until the fecal mass is washed out. If the movement is hard, it may be softened with soapsuds or a finger may be put in and the mass broken up. Any irrigations must be given slowly.

The patient must be taught to constipate himself, by diet so that his bowels move only by irrigation. With this plan no colostomy bag is worn by our patients.

### *Performing a Colostomy*

Enough bowel should be allowed to protrude so that the bowel will not tend to shrink below the skin level, as gradual scarring will result in an index finger size colostomy. A stricture of the colostomy opening should be excised and an os usually on the skin. The patient is told to dilate the opening with the finger, up to the second joint, after each irrigation.

(Brief notes by a member of CLINICAL MEDICINE'S staff; from an address by Dr. Lahey, corrected by the author.)

# Seminar Problem

Presented by M. PINSON NEAL, M.D., Columbia, Missouri

## History

A WHITE male, 32 years of age, came under observation July 12, 1937, the chief complaints being:—

1. Weakness
2. History of repeated bleeding
3. Air hunger, at times
4. Inability to perform normal duties as an automobile mechanic and truck driver

There was a history of bleeding at intervals for more than three years, which at times had been severe, from the rectum. At other times it had resulted from injuries but was never severe. He stated that he had been termed a "bleeder" by different physicians and he had previously received some transfusions of blood.

"Air hunger" was noticed only following the severe hemorrhages when there was also faintness and ringing in the ears. Past history was essentially irrelevant in other respects and he had experienced no severe illness. There was no history of personal or family malignancy, syphilis, or tuberculosis, though a cousin was said to be a "bleeder." He was hospitalized at this time because of severe bleeding from the gastro-intestinal tract over a period of several days and for a transfusion of whole blood.

## Examination

The patient appeared severely exsanguinated, was oriented, conscious, with the skin white to ochre in appearance, moist, and lips colorless, and there was a body temperature of 100° F., pulse of 104, and a respiratory rate of 32. Slight exertion caused pulse and respiratory rates to increase. The red blood cell count was 1,300,000, with hemoglobin 20 per cent (Dare). There was administered intravenously 800 cc. of citrated blood. He was permitted regular diet, and the immediate course was uneventful. After 72 hours, the red blood cell count was 3,904,000, total white blood cell count 8,320, with neutrophils 85%, eosinophils 1%, lymphocytes 12%, and large mono-

nuclears 2%. The Kahn reaction was negative, and the urine showed no abnormality on physical, chemical, or microscopic examination.

He was rehospitalized on March 17, 1938, and on January 7, March 3, June 20, and November 16, 1939. Admission record on each of these occasions bore the previous chief complaints of weakness and bleeding, and he was termed a "hemophiliac." The bleeding was consistently from the gastro-intestinal tract. Repeated Kahn tests and urinalyses were negative. The total red blood cell counts and hemoglobin values were regularly far below normal. The blood coagulation time on two different occasions was recorded as "complete in two minutes" and "complete in three minutes." Coincident bleeding time was "six and one-half minutes and four minutes." Stained blood films frequently revealed marked anisocytosis with microcytes, marked poikilocytosis but without diagnostic forms, moderate polychromatophilia, and a few normoblasts.

During 16 months, the patient received a total of eleven transfusions of citrated blood, each being necessitated by a hemorrhage from the gastro-intestinal tract. He was given at times calcium lactate, Bisodol, Blaud's pills, yeast tablets, soft to regular diet, with roughage, and during periods of uneasiness, sedatives. At times, he complained of moderate or even severe epigastric pains for which an ice bag was applied locally, and in a few instances codeine was given for relief.

The last admission was on November 16, 1939, following severe hematemesis, with much abdominal discomfort. There was administered promptly 1000 cc. glucose solution and adrenalin. While preparations were being made for transfusion, the patient expired.

All readers are invited to answer this problem giving a diagnosis as to the cause of death, with reasons, and suggestions that may have been helpful in treatment.

(Answers should be mailed to CLINICAL MEDICINE, Waukegan, Illinois, by Monday, November 15th, and publication will appear in January.—Ed.)



# Colles' Fracture

(Pictorial Graduate Course Symposium)

As a follow-up on Dr. H. Herman Young's excellent article on Colles' Fracture, here are additional comments by a number of outstanding men in regard to errors in the management of this common fracture.

## DISCUSSION

By Leo K. Cooper, M.D.,  
Orthopedic Surgeon,  
Gary, Indiana.

With the memory of conditions under which many men work, I would say that it is possible to reduce a very recent Colles' fracture within a period of several hours without an anesthetic. It is somewhat painful, but the entire manipulation takes less than five seconds.

If, on the other hand, the fracture is a little older, the patient should have an anesthetic, preferably general, because the infiltration of local anesthetic into the fracture site further increases the swelling and makes manual examination, following the reduction, unsatisfactory.

For anesthetic, I ordinarily use ethylchloride given by inhalation. The anal-

gesic stage of anesthesia can usually be arrived at in thirty seconds.

Starting with the induction of the patient lying on the table, the mask is applied to the face. The good arm is held perpendicular while the patient counts. As soon as the patient stops counting and the arm falls, the mask is immediately removed and the manipulation of the injured wrist is carried out. This is done as follows:

Supposing the right wrist is injured, the doctor grasps the injured hand with the right hand as though in the act

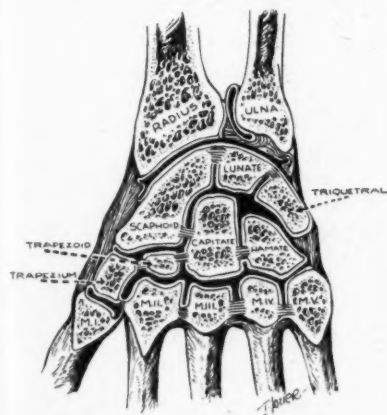


Fig. 1. Coronal section through the hand and wrist indicating the radio-carpal, carpal, carpo-metacarpal and intermetacarpal joints with their joint cavities and interosseous ligaments (diagrammatic adaptation from Cunningham).

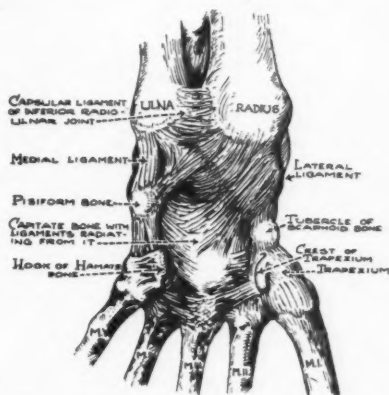


Fig. 2. Ligaments on the front of the radio-carpal, carpal and carpo-metacarpal joints (Cunningham).

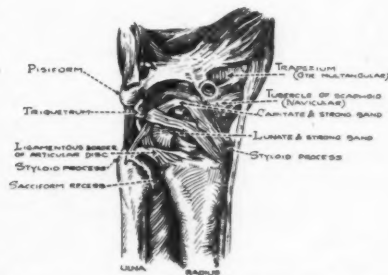


Fig. 3. Ligaments of the distal radio-ulnar, radio-carpal and intercarpal joints, front view (Grant).

of shaking hands. The fingers of the operator's left hand encircle the wrist lifting the volar surface of the wrist, with the thumb of the left hand over the silver-fork deformity on the dorsal surface of the wrist. In one motion, the injured hand is pulled distally and volar, while the fingers of the operator's left hand form counter traction, the left thumb pushes downward on the dorsal end of the fractured radius.

If, after this manipulation, the wrist falls easily into the position of flexion, the reduction is complete. If the wrist does not fall forward into flexion, further reduction must be attempted.

Next, following the reduction, the as-

sistant should put traction on the index, middle and ring fingers in a volar and distal direction, while the left hand of the assistant, which has been placed over the volar surface of the wrist from the ulnar side forms counter traction.

Next, with the traction remaining constant as directed above, a very wet plaster of Paris splint is laid on the dorsal surface of the forearm, extending from the metacarpal phalangeal joints proximal to the flexion crease of the elbow, with the hand in pronation.

There is no shaving or washing of the arm, for this procedure, in a simple Colles' fracture. The plaster splint is then firmly bound to the dorsal surface

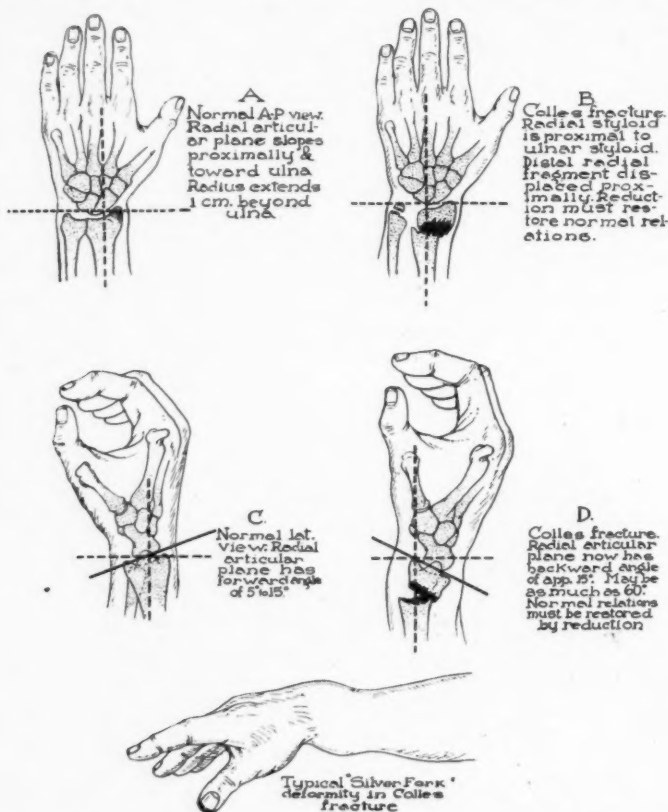


Fig. 4. Clinical and roentgenographic correlation concerning Colles' fracture (adapted from Compere).

## COLLES' FRACTURE

of the forearm with a two-inch gauze, great care being taken to make it smooth so as to avoid pressure sores on the skin or tissue underneath the mold. After the dorsal plaster mold has hardened, the original gauze is removed, because, having been wet, it will tend to shrink and the injured forearm will tend to swell. The posterior mold is then rewrapped with a dry gauze.

Starting above the upper end and wrapping down towards the hand, never turning the gauze but merely overlapping it  $\frac{1}{2}$  to  $\frac{3}{4}$  inches with each turn. A portion of this wrapping will have to extend to the dorsum of the cast between the thumb and the index finger, across the palm of the hand. This wrapping across the palm of the hand is reinforced with a little adhesive.

Long before this procedure is accomplished, the patient is usually awake, and the only dangers which one must guard is ischemic contracture caused by a swelling of the forearm and tightness of the bandage. If the bandage becomes too tight it can be removed and rewrapped without disturbing the posterior mold.

Immediately following this application of this cast and bandage, the patient is instructed with great care and exhorted to use the fingers with any and all motions, in order to prevent stiffness of the fingers and small joints of the fingers, which is the most disabling part of any Colles' fracture.

The forearm is ordinarily not carried in a sling. The patient is instructed to swing the arm about at the shoulder joint in order to avoid a painful shoulder which is a very frequent sequel to a Colles' fracture and is caused wholly and solely by contractures about the shoulder joint due to disuse.

Next you will probably wonder why I haven't mentioned the use of a volar splint to help in immobilization. I don't use a volar splint along with a dorsal splint because it has been absolutely unnecessary to retain the reduction of the fragment. I believe it is dangerous because it leaves no room for swelling of the injured forearm, which will, in turn, be risking the development of ischemic contracture.

The hair, which is left on the forearm

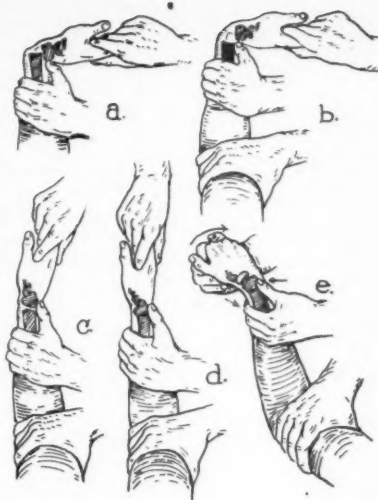


Fig. 5. Reduction of Colles' fracture by manipulation (Caldwell technic): The fracture is angulated without traction, the fragment is pushed distally by the surgeon's thumb, traction and countertraction made as fragment is forced forward, the wrist flexed and deviated to the ulnar side while the fragment is retained by direct pressure with the thumb.

and hand, becomes incorporated in the dorsal splint and thus helps it maintain its position. I have not seen a Colles' fracture since 1937, which would not respond to the above treatment, either simple or compound. From what I have seen in the many clinics I have visited, I believe the simple explanation given above is the most simple and practical of any I have ever seen. Most men may not believe such excellent results could be achieved so simply.

However, when this posterior mold is removed, after a period of three to six weeks, depending upon the severity of the comminution at the fracture site and the hand is found to be stiff, the treatment of the patient should be considered a failure. The most important part of the treatment following the application of the cast is the active use of the fingers and thumb to prevent stiffness of all the small joints of the hand.

Some traumatic arthritis about the wrist joint can always be expected and is unavoidable.

## DISCUSSION

By J. Walter Levering, M.D.  
Pfeiffer Surgical Clinic,  
Abington, Penn.

There are certain important points to be stressed in the treatment of Colles' fracture.

First is, that proper reduction be obtained so that the axis of the joint is in its normal position. Whether it is done under general anesthesia or local, depends largely upon the case and degree of impaction, as well as the age and nervous background of the patient.

After reduction is obtained proper fixation is the next most important point. I prefer a molded plaster splint on one

or the other surface with a few circular turns. It is important that the splint does not interfere with the motion of the fingers; although, of course, the wrist joint must be fixed.

The next point is, if there is any swelling the splint may get too loose and deformity recur to some extent, so that inspection and check-up x-ray are necessary after a few days, if there is any question at all of slipping. Immediate motion of the fingers is encouraged and prevents stiffness developing in the hand. Usually fixation is necessary from 4 to 5 weeks. X-rays for degree of callus should always be made after removal of the dressing.

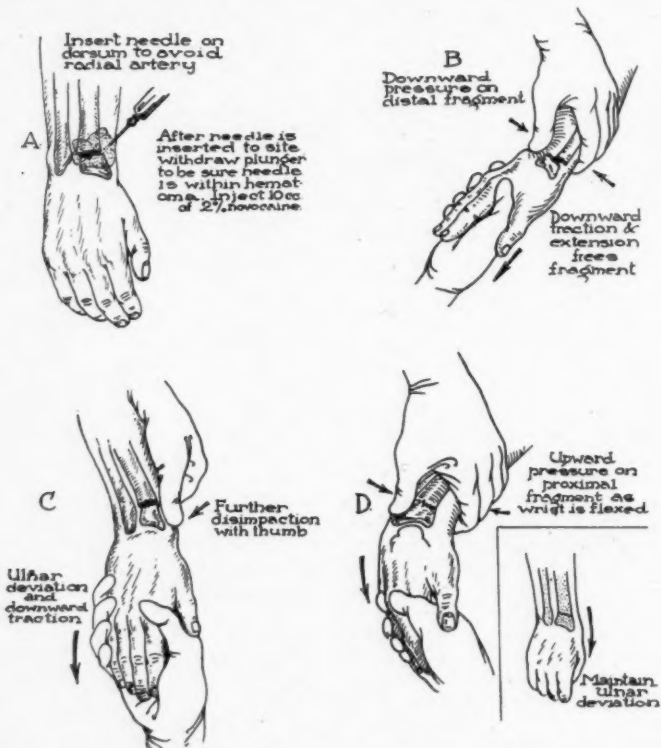


Fig. 6. Compere's technic of reduction with local anesthesia. 10 cc. of 2 percent procaine solution is injected into the hematoma; traction and extension loosens the fragment while direct pressure is made on it; traction is continued and the hand deviated to the ulnar side; as the wrist is flexed, upward pressure is made on the radius. Ulnar deviation is maintained.

## COLLES' FRACTURE

### DISCUSSION

By A. B. Gwinn, M.D.  
Hastings, Mich.

The errors I have seen in the management of Colles' fracture are as follows:

1. Failure to flex wrist and get ulnar deviation of the hand.
2. Failure to break up impactions.
3. Improper reduction.
4. Failure to use X-ray before and after reduction.

The best method of treating Colles' fracture in my opinions is:

1. The use of a general anesthetic that will give good relaxation. Ether or sodium pentothal intravenously may be used.
2. Good reduction, including breaking up of any impaction and the correction of any deformity.
3. Wrist flexed and hand in ulnar deviation.
4. Plaster cast for immobilization rather than splints.
5. X-ray before and after reduction of fracture and in six to eight weeks later for callous.

### DISCUSSION

By Paul H. Harmon, M. D.,  
Morris Memorial Hospital  
for Crippled Children,  
Huntington, West Virginia

Often, in general practice, little attempt is made to differentiate between simple transverse fractures of the distal radius and the complicated types of fractures of this region. Failure to recognize the complicated fractures and to provide

the additional measures required for successful treatment of these latter varieties is the cause for most of the poor results in these fractures.

It is of interest to note that Pouteau (1770) first pointed out that most wrist deformities were produced by fractures of the distal radius in falling on the outstretched hand. Colles, in 1814, described a "transverse fracture with dorsal displacement one inch proximal to the distal articular surface of the radius which was easy to reduce and maintain." Even though Colles' definition was given long before the roentgen era, it is obvious that the true Colles fracture is not comminuted and is not unstable after reduction.

Fractures of the distal radius should be designated as simple or uncomplicated and complicated and unstable. The latter fractures are accompanied by injuries to the articular disc and the ulnar styloid, (the articular disc is related to the ulna, not to the radius—Anatomic consultant's note) and the fracture in the radius is usually comminuted. The Barton type of fracture and the reversed Colles, or Smith's fracture, are so rare that they need not be considered from a practical point of view, except that it should be pointed out that in the latter the displacement of the distal fragment is ventral.

Mayer (Mayer, J. H.: *Brit. Jour. Surg.* 27:629, 1940) has published an experimental investigation of fractures of the distal radius in cadavers. His experiments are so clear cut and presented in such an orderly fashion that every sur-



1. Fracture of the ulnar styloid.
2. Rupture of the disc from the ulnar styloid.
3. Loosening of the disc articularis by comminution of the distal radius.

geon who undertakes to treat fractures of the wrist should know of them. Fractures which he produced experimentally are referred to as "first and second stage fractures." In producing *first stage fractures*, the radius was divided one inch proximal to its distal articulation with a Gigli saw without injury to the ligaments or to the ulnar styloid. When he attempted to produce dorsal displacement of the wrist by backward pressure of the hand in the first stage fractures, he found:

- (1) Only slight backward angulation occurred, and this remained moderate even with strong pressure on the hand.
- (2) Rotation of the lower radial fragments in a direction of supination around the head of the ulna was the most striking displacement.
- (3) It was impossible to produce either true backward displacement or radial deviation of the lower radial fragment. The roentgen illusion of radial displacement is actually a supination twist.
- (4) Dissection of the wrist showed that the axis of the supination twist was the attachment of the triangular fibrocartilage (medial collateral ligament) near the base of the ulnar styloid.

*Second stage fractures* were then easily produced by dividing the styloid process of the ulna at its base. By fracturing the base of the ulnar styloid, the following additional displacements were observed:

- (1) The lower fragments of both bones, joined by the fibrocartilage could be displaced as a separate unit, and the lower radial fragment no longer pivoted around the head of the ulna.
- (2) The tendency toward displacement in this fracture was for the ulnar styloid to be pulled backward and slightly radialward.

If the fibrocartilage itself was divided instead of the fracture being made at the base of the ulnar styloid, the results were the same.

The experiments and the critical clinical work of many surgeons (Cotton, Edwards and Clayton, Magnuson, Platt, Lippman, Darrach, Taylor and Parsons,

Lambrinudi and Mayer) are the basis for the important division into simple and complicated or unstable Colles' fractures.

Instability may be produced by:

- (1) Fracture of the ulnar styloid.
- (2) Avulsion of the fibrocartilage from the ulna, or rupture of the fibrocartilage.
- (3) Extensive comminution of the distal radius, freeing the fibrocartilage from its radial attachment.

#### *Maintaining Reduction*

The only means of holding the unstable Colles' fractures is by:

- (1) Skin-tight plaster, applied in full pronation and slight ulnar deviation. The plaster should extend half-way up the arm.
- (2) Utilizing the extreme Cotton-Loder position of wrist flexion and ulnar deviation with a forearm plaster.
- (3) By maintaining continuous extension either by thumb traction (Murray and Goodwin and Cameron) or by transfixing the metacarpals and upper ulna with Kirschner wire, embedding the wires in a cast. Wire transfixion is not recommended as a routine, as it is not felt that such a method is sufficiently without danger to use indiscriminately.
- (4) From a practical point of view, most of the unstable fractures of the distal radius can be held by the Cotton-Loder position of ventral flexion and ulnar deviation or by an unpadded or lightly padded circular forearm and hand plaster carefully molded around the radius and the thumb metacarpal (Watson-Jones technique). *The Cotton-Loder position should not be maintained for more than 10 days at which time it is changed to a neutral position.*

#### *After Care*

Assuming that a good reduction has been obtained by the recognized manipulative methods, flexion and extension of the fingers and *active shoulder exercises* should be begun by the patient at once. He should be supplied with a small rubber ball in order to remind him of the finger exercises, and the relatives should



be instructed that the patient can assist with the dishes and other simple household tasks, or he may return to light work. There is no need for the use of an arm sling, except a small one, in the event the plaster extends over the elbow. *Neglect of finger and shoulder exercises is one of the greatest causes of disability in wrist fractures.*

Some support should be kept on the wrist for five to six weeks following an uncomplicated or intermediate grade fracture of the wrist. In the case of comminuted fractures of the distal radius, support is necessary for six to eight weeks. An average cooperative patient with a simple or intermediate grade fracture should have almost normal finger motion at the end of the week and should be able to maintain this through five or six weeks' immobilization.

Weekly roentgenograms for the first three weeks are important. On the basis of these examinations, remanipulation may be indicated. If these directions are scrupulously followed and attention given to the details of immobilization, the surgeon will be rewarded with fewer cases that "slip in plaster," and his results will near perfection in cooperative patients. No method has yet been devised which will secure good results in uncooperative and psychotic patients.

### DISCUSSION

By Gordon Whiston, M.D.,  
Casper, Wyoming.

The patient should be placed on a firm table with the injured side sufficiently away from the edge so that the shoulder can be abducted to  $90^\circ$ , the elbow flexed to  $135^\circ$ , allowing the upper fourth of the forearm to rest on the table and the remainder of the extremity to be free. Shoulder abduction is maintained by a muslin band passing around the arm and tied to the upper end of the table.

**Transverse fracture:** A leverage technique is used which forces the fragment into position (see Fig. 2.). The left thumb and thenar eminence is placed proximal to the fracture and the right thumb and thenar eminence distal to the fracture on the dorsal surface.



Fig. 1. Method of maintaining shoulder abduction and traction on wrist.



Fig. 2. Position of surgeon's hands in reducing right Colles' fracture.

**Oblique fracture:** The shoulder is abducted and the flexed elbow position is used; traction is employed to obtain length and hold fragments in alignment. An assistant grasps the patient's thumb with one hand and the index and middle fingers with the other (Fig. 1), and makes traction down towards the floor, which flexes the wrist, ulnar deviates the hand and pulls the fragments into alignment.

**Plaster splint:** Make a plaster splint measuring from the knuckles to the upper third of the forearm, and as wide as two-thirds of the circumference of the wrist. The plaster is applied directly to the skin on the dorsum of the hand and forearm. That portion of the plaster over the base of the thumb is cut away which leaves a narrow strip to pass between the thumb and index finger (Fig. 3.)

The thumb is left free and the



Fig. 3. Dorsal view of plaster splint.



Fig. 4. Volar aspect of forearm and splint prior to application of bandage.

plaster molded around both lateral surfaces of the wrist. This allows an open space on the anterior surface of the wrist but forms a firm support about the wrist joint (Fig. 4.) The plaster is bandaged on loosely with a moist 2 inch gauze bandage which becomes adherent to the wet plaster.

## DISCUSSION

By H. Winnett Orr, M.D.

*Orthopedic Hospital, Lincoln, Nebraska.*

Errors in diagnosis are chiefly those of failure to recognize impaction of the head of the radius and displacement of the wrist and hand toward the radial side of the arm. The more severe injuries and deformities are usually recognized.

In treatment, failure to replace the head of the radius is very common. Many stiff wrists, hands, and fingers are blamed upon prolonged fixation in casts or splints or arthritis when, as a matter of fact, the fracture deformity has never been corrected. In correcting these deformities, the usual error is, not to provide enough traction while manipulating fragments into correct position. In our clinic here, we often resort to pins at the elbow and through one of the metacarpal bones, so strong traction may be arranged while the radial fragment is being replaced. In this way all the parts may usually easily be put back in correct position. We might not suggest this for general practitioners, but, as a specialist, I think it may be well to point out that general practitioners must, in special cases, find consultation necessary.

Another expedient we sometimes employ is to use a pin as a lever to replace a radial fragment which is entirely displaced upon the back of the radius. This is really quite easy to do, but only suggested for the service of the specialist. Early diagnosis, complete reduction, traction when necessary, and complete control after reduction, are the things to emphasize in these cases, and not early motion as is done too often.

## The Organic State in the Problem of Allergy

"There are certain deficiencies of the medical sciences to which little attention has been devoted. These deficiencies depend upon the fact that living organisms are immensely complex and that the experimental sciences, by hook or crook, analyze the concrete reality into relatively simple elements. But the complex reality is never describable by merely adding up these elements, for they exist in a state of equally complex interaction."—Henderson.

## EDITORIALS

### Sexual Deficiency

**V**ITAMIN deficiency, hormonal deficiency, mental deficiency, on all these, we read frequently and consider often in practice. Sexual deficiency, more frequent and more important is rarely considered. Desire for food is the only drive greater than the sexual desire, yet it is rarely considered in practice or in literature. Few standard history forms include any questions regarding sexual unhappiness or failure of adjustment.

In the complicated process of growing up and adjusting our bodies and minds to conditions and people outside, we stumble forward toward maturity, a goal that many never reach.

A mature individual understands himself and is able to constantly harmonize his internal drive with external conditions. A mature person realizes that all his past experiences affect his thinking and feeling, that an incident which occurred during childish play, at a grade school party or a high school dance may forever influence his actions, that his views toward sex are drawn from those of his parents, friends and religious sources during the years, that true sexual adjustment is difficult to arrive at and to constantly maintain.

How can the physician help? It is often too late for cure but help may always be given.

One simple thing the physician may do: when examining infants, children or young adults, examine the external genitalia in as routine a manner as you examine the throat. Psychiatrist Florence Swanson has called attention to the fact that many physicians comment on the throat, lungs and so on, but pass the genitalia without remark, which may lead the child to fear that something is abnormal. A simple comment that everything is "OK" or good" will prevent the setting up of a harmful

complex. The examination will occasionally disclose physical abnormalities, such as a tight foreskin or very small urethral meatus in the male (with resultant obstruction and pyuria) or an imperforate hymen in the female.

It has been well said that virginity is a state of mind rather than an atomic fact. A complete examination of girls at any age should include a rectal examination, and vaginal examination may be added if lower abdominal symptoms are present. (For example, cervicitis in the virgin causes pain, vaginal discharge and frequency of urination and requires local treatment of cauterization). A gentle, well-lubricated vaginal examination need not be painful and will protect against pain during the first intercourse.

The physician may help in his discussions with couples about to be married, with young married persons, during pregnancy and especially with men and women who complain of symptoms related to sexual function (difficult or painful intercourse, lack of desire, impotence) and even to such closely related structures as to bladder and rectum. A few questions may reveal physical or mental abnormalities.

The physician must remember that his own views are colored by his personal conflicts, experiences and religious beliefs. If he is not fully adjusted emotionally, he will not be able to discuss a patient's problems objectively and should confine himself to complete physical examinations, a simple presentation of the findings and suggestions as to printed literature for discussion of the problems of sex.

*The individual, the environment, the remorseless roll of the years—what an impressive trilogy. No wise physician would think of man or of disease dissociated from time and from environment.*—J. K. HALL, M.D.



## CLINICAL NOTES AND ABSTRACTS

### Diagnostic Mistakes in Encephalitis

The diagnosis of encephalitis is frequently confused with sun stroke, cerebral accidents, mild infantile paralysis, and various other common febrile diseases. The disease produces various degrees of degenerative and disseminated inflammatory changes in the central nervous system and its coverings leading to symptoms from the mildest sort of brief febrile disorder to a severe, highly fatal type. The mild illness is almost never diagnosed.

The onset may be abrupt with high fever and cerebral symptoms but more commonly is gradual with the temperature reaching on the second to fourth day of from 101 degrees to 107 degrees F. The peak fever is maintained from one to five days, then gradually decreases. Headache is very severe and is usually the chief complaint. It may become so severe that the patient is dull and stuporous, or irritable and possibly violent. There is stiffness of the neck, low back rigidity, and hamstring muscle tightness. Nystagmus and paralysis of the extraocular muscles may occur. Abnormal sensitiveness to light, with some congestion of the conjunctivae is often present. Pupils are not dilated normally and they respond to further light by sluggish contraction. Tremor of the hands, tongue, lips and jaw may develop. Spasticity of the extremities may become marked and occasionally they become involved in a flaccid paralysis.

In differentiating severe poliomyelitis, the mind is alert and one or more limbs have developed flaccid paralysis. Convalescence is usually slow and prolonged. Severe brain damage in infants and children is not uncommon, but it is rare in adults.

There is no specific treatment. Hypertonic glucose solutions given intravenous-

ly may relieve headache and diminish drowsiness during the early stages, and lumbar puncture should be done when cerebrospinal fluid pressure is increased. Fluids should be given by stomach tube, or intravenously.—W. M. HAMMON, M.D., in "The Doctors Talk It Over" (Lederle Laboratories, Inc.) March 19, 1946.

### Neurologic Symptoms in Acute Infections of Children

1. Is meningitis present?: Rigid neck, positive Brudzinski, Kernig and Babinski signs with high fever and normal spinal fluid findings are usually due to meningeal irritation (meningismus) occurring at the onset of an acute infection such as pneumonia, tonsillitis, otitis media, pyelitis or diarrhea. The symptoms usually disappear when the original disease becomes fully developed.

2. *Convulsions*: Convulsions may occur at the onset of acute infections in children, just as a chill occurs in the adult. If it recurs, suspect encephalitis or epilepsy.

3. *Lethargy* lasting for more than a few hours indicates severe disturbances of the central nervous system. Maniacal outbursts indicate an acute psychosis, often in a previously psychotic personality.

4. *Differential diagnosis* of neurologic symptoms during an acute infection: A. Acute infection outside the central nervous system accompanied by transitory neurologic symptoms; B. all types of meningitis; C. brain abscess; D. brain tumor; E. epilepsy. If coma is present, rule out uremia, diabetes and drug intoxication.

# ABSTRACTS

Related or Associated Conditions	Significance
Tonsillitis or grippé.	Probable temporary neurologic manifestations.
Pertussis, measles or German measles.	Encephalitis.
Poliomyelitis epidemic.	Possible poliomyelitis.
Tuberculosis in patient or in family.	Tuberculous meningitis (slow onset).
Previous convulsions.	Epilepsy.
Chronic nephritis.	Uremia.
Diabetes.	Diabetic acidosis.
Drugs.	Drug intoxication.
Head injury (may be slight).	Subdural hematoma or brain hemorrhage.
Examination findings	Significance
Tonsillitis, otitis, pneumonia.	Probable transitory neurologic symptoms.
Slight neck rigidity.	Less indicative of meningitis than if neck is very rigid.
Unilateral symptoms or signs.	Encephalitis or meningitis, especially tuberculous.
Absence of reflexes or weakness of extremity.	Anterior poliomyelitis, polyradiculitis, or polyneuritis.
Exaggerated reflexes.	No diagnostic significance (present in normal children).
Positive Babinski sign.	Normally present under 15 months of age.
Bulging fontanel.	Suggests meningitis.
Petechiae on skin or conjunctivae.	Meningococcal sepsis (meningococemia), less likely to be subacute bacterial endocarditis or blood dyscrasia.
Position of patient:	
On side with knees drawn up.	Meningitis.
On back with legs extended.	Encephalitis.
Temperature:	
High fever.	Upper respiratory infections, acute meningitis.
Moderate fever.	Tuberculous meningitis.
Normal fever.	Uremia, epilepsy (may be high).
Pulse:	
Fast.	Meningitis.
Slow.	Brain tumor.
Changes with course.	Tuberculous meningitis.
Respirations:	
Fast.	Acute non-neurologic conditions.
Variable.	Meningitis, encephalitis, poliomyelitis (rapid or slow, especially if intracranial pressure is increased).
Ears:	
Otitis.	Neurologic manifestations.
Mastoiditis.	Meningococcus sepsis or subacute bacterial endocarditis.
Eyes:	
Petechiae on conjunctivae.	Increased intracranial pressure.
Choked disc, papilledema, atrophy.	Tuberculous meningitis.
Choroid tubercles.	
Urine:	
Much albumin.	Uremia.
Small amounts.	Any fever.
Sugar.	Diabetes, or acute infections of nervous system.
Blood:	
Leukopenia.	Beginning measles or typhoid.
Stippled red cells.	Lead intoxication.
Increased blood sugar.	Present in all general infections.
Low blood calcium.	Tetany.
Low blood sugar.	Hypoglycemia.
Blood culture.	Valuable if positive, as for meningococci.
Spinal puncture:	
Color.	Withdraw only a small amount of fluid for study at first; no changes except increased pressure in general infections like otitis, pneumonia.
Pressure.	
Cell count and differential count.	
Protein, qualitative and quantitative.	
Smear and culture for bacteria.	
Tuberculin test:	
Positive.	Possible tuberculous meningitis.
Negative.	Does not rule out tuberculosis.
X-ray:	
Chest.	Pneumonia, miliary tuberculosis.
Mastoid.	Mastoiditis.
Long bones.	Lead line (poisoning).

Causes of the neurologic symptoms include edema and hyperemia of the brain, serous meningitis, petechial hemorrhages and encephalitis, epilepsy, dehydration, low blood calcium (rare), previous brain disturbances and familial tendency.

#### Treatment

Hospitalization is advised. Extreme restlessness should be treated with sedation. Headache requires caffeine, sedatives and occasionally, lumbar puncture.

**Convulsions:** Immediate treatment with chloroform inhalations, after applying vaselin to eyelids and lips. To prevent respiratory embarrassment, do not apply mask tightly. To prevent repetition of convulsions, use barbiturates orally or rectally or chloral hydrate rectally. Phenobarbital,  $\frac{1}{4}$  to  $\frac{1}{2}$  gr., orally suffices in infants. Do not use morphine, mouth gag or baths. Sodium phenobarbital or sodium amyltal may be given intramuscularly or intravenously (0.04 gr. per pound of body weight.) Do not disturb the patient after the convulsions cease. Oxygen should be used for cyanosis.

Spinal puncture is carried out after convulsions cease, for diagnosis and may be valuable for therapy. ABRAHAM LEVINSON, M.D. (Chicago) in *Med. Clinics N. Am.* April, 1946.

### Intravenous Ether for Vascular Pain

The intravenous injection of 10 cc. of ether in 100 cc. of physiologic saline solution relieves pain in arteriosclerotic gangrene, thromboangitis obliterans and diabetic gangrene. The injection may be repeated daily. ROBERT A. KATZ, M.D. (Touro Infirmary, New Orleans, La.) in *New Orleans Med. & Surg. J.*, June 1946.

### The Treatment of Chronic Fistula

A chronic fistula should be treated with a stick of silver nitrate. The sinus tract is probed to determine its size and direction. If it is narrow, it is enlarged very gently and gradually with a straight hemostat. The silver nitrate stick is slowly inserted, always following the sinus tract. If the sinus tract is longer than the ordinary silver nitrate

stick, parts of a whole second stick can be inserted.

The skin is covered by a thick layer of zinc oxide ointment for a wide area around the sinus tract and a sterile dressing applied. Considerable purulent discharge from the sinus tract usually follows. After two or three days, one can remove the silver nitrate stick and with it the sinus tract which has become encrusted on the nitrate stick. The tract is removed with a forceps. Usually the sinus tract is lined with red, healthy-looking, granulation tissue. It rapidly shrinks and healthy granulations may lead to complete and permanent closure.

This overlooked technic has been described several times in the literature. The last by Ernst Freund, M.D., of Venice, Florida and published, April 11, 1936, in the *Journal of the American Medical Association*. (Dr. Freund recently passed away.—Ed.)

### Hemophilia and Hypoprothrombinemia

**Hemophilia:** Blood transfusion or plasma transfusion improves the coagulability of the blood and may help control the patient during a bleeding episode.

For bleeding from injured skin surfaces use a sealed pressure dressing and local application of thrombin.

**Hypoprothrombinemia:** Some cases are due to avitaminosis K, some to liver disease and others are not understood. In patients lacking vitamin K due to obstructive jaundice, biliary fistula, intestinal disease and hemorrhagic disease of the newborn, vitamin K is specific therapy and produces excellent control of the bleeding tendency.

The intravenous administration of 3 mg. or more daily of hykinone, or synkamin is recommended. Failure to restore prothrombin time to normal under controlled conditions is presumptive evidence of liver disease.

**Bleeding:** Local control of bleeding is important, even such procedures as incising the ear lobe for blood counts may result in loss of an excessive amount of blood. Puncture of the vein is not hazardous.

**Nosebleed:** Do not cauterize the nose. Apply packs with strings so that there is firm pressure both anteriorly and



posteriorly. Do not use adrenalin but saturate the packing with thrombin.

**Bleeding from the gums** may be treated by use of pressure dressings beneath plaster-of-paris casts of the jaws.

**Uterine bleeding** may be controlled with uterine packs saturated with thrombin solution.

**Bleeding from the broken skin** can be controlled by the use of a sealed pressure dressing. A small piece of gauze is held tightly against the bleeding surface by an assistant. The adhesive surface of a piece of adhesive plaster larger than the gauze is covered with a rapidly drying cement and applied. Successively larger layers of similarly treated adhesive plaster may be added to increase the strength of the final dressing.—S.L. VAUGHAN, M.D. in *N.Y.S. Jour. of Med.*, Jan. 1946.

## Vitamin B Deficiency: Intestinal Diagnosis

The X-ray diagnosis of vitamin B deficiency: Segmentation, puddling, dilatation, stasis and abnormality of the pattern of the small bowel are all indicative of vitamin B deficiency and, when present in characteristic form, indicates that this may be a possible diagnosis. A similar appearance is produced in pancreatic deficiency particularly in children and rarely in such conditions as hookworm disease and diffuse low-grade enteritis. The findings, however, are generally of such significance that they justify institution of vitamin B therapy, if for no other reason than as a therapeutic test.—LEO G. RIGLER, M.D., University of Minnesota, in a letter to CLINICAL MEDICINE.

## Local Anesthesia for Delivery

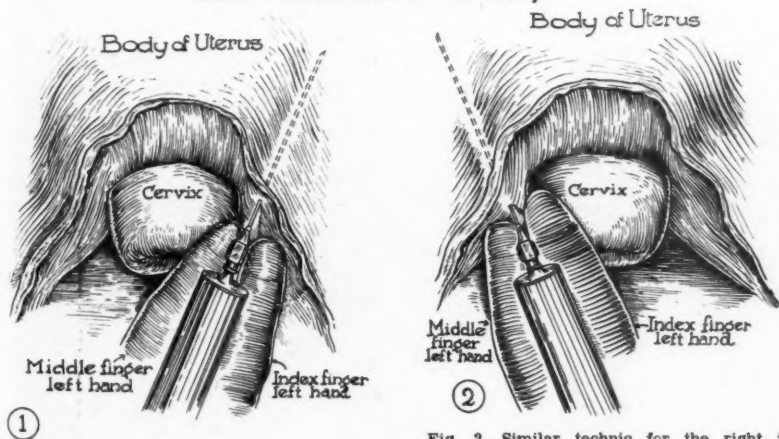


Fig. 1. Injection of the left parametrial tissue: The position of the long, flexible needle indicates the outer limit of the area injected.

Soap and water washing of the vulva and perineum, draping and injection of aqueous merthiolate solution into the vagina with a rubber bulb syringe (asepto type) precede the local anesthetic injection.

The index and middle fingers of the left hand are pressed into the space between the left side of the cervix and the vaginal vault to guide the needle close to and parallel with the cervix.

Fig. 2. Similar technic for the right injection: The local anesthetic solution is injected as the needle is advanced and as it is withdrawn. At least 25 cc. of Nupercaine 1:1, 1000 or Eucupin 0.5 percent with 1 percent procaine solution is used. Two drops of adrenalin are added to each vial of anesthetic solution used.

Anesthesia lasts for 3 to 4 hours. If local infiltration of the perineum is added prior to the time of delivery, little pain is felt during the entire delivery. The parametrial injection may be repeated, if necessary. The technic works best for multiparas and primiparas with soft cervixes.—Adapted from S. ROSENFELD, M.D. in *Am. J. Obstet. & Gyn.*, Jan. 1946.

## Removal of the Ovary

The great majority of corpus luteum and follicular ovarian cysts have no clinical significance. They do not cause pelvic pain, ovarian "pressure" or backache. It is unnecessary to puncture or resect the cyst or to remove the ovary.

Ovarian tumors are silent and produce few symptoms. The majority of malignant and practically all benign ovarian tumors do not disturb menstrual function.

Most of the symptoms attributed to ovarian tumors arise from complications, such as torsion of the pedicle, incarceration in the pelvis and malignancy.

Since ovarian malignancy may occur in women of 20 years of age, treat all ovarian tumors as potentially malignant. Palpate the liver and omentum for metastatic lesions. The cyst should be opened, after its removal, but before the abdominal incision is closed. If one finds hemorrhage into the cyst, papillations on the interior, and especially on the exterior, surface malignancy is suggested. A frozen section should be done and with definite evidence of ovarian malignancy, remove the uterus, tubes and ovaries.—W. S. MENGERT, M.D. in *Texas S. J. Med.*, Jan. 1946.

## Obesity and the Menopause

Obesity is characteristic of the menopause chiefly because women become inactive and metabolism is decreased at this age, not because of cessation of ovarian function. Hypothyroidism is usual during the menopause and postmenopausal years and is a contributing factor to obesity.—ARTHUR CURTIS, M.D. in "Textbook of Gynecology" (W. B. Saunders Co.)

## Infantile Scaly Scalp

About the first month of life, many infants have a scale appear over the scalp which, if neglected, can become a severe encrusted dermatitis, with purulent exudate and occipital adenopathy. It should be thoroughly removed with soap and water, or by application of two per cent ammoniated mercury in a non-greasy base. A few applications seem to get the infection under control, and as the infant develops natural immunity, the disease disappears.—LEE BRVINGS, M.D., in *S. Med. J. Jnl.*, June 1946.

## Hot Baths for Infantile Paralysis

Immersion in warm water during the early phases of infantile paralysis is simpler than the use of hot packs. The only equipment necessary is a bathtub of sufficient length so that the patient can lie in an extended position, and two to four persons to lift the patient in and out. Water at a temperature of 104° F. is used, with six immersions daily for 15 to 20 minutes each.—A. D. GUFFE-WITSCH, M.D. in *J. Pediatrics*, May, 1946.

## Unexplained Fever in Infants

Unexplained fever, bulging fontanel, and irritability are symptoms sufficient to warrant a spinal puncture in infants or children. We have found that in any of the various types of meningitis, children under one year of age often have no signs of meningeal irritation until late in the disease. The patients' failure to manifest clear cut signs of meningeal irritation, until several days after the onset, when under seven months of age, makes the diagnosis difficult. If one finds gram negative bacilli or diplococci, on direct smear, the diagnosis of influenza, meningitis may be made.—E. S. PLATOU, M.D., in *Journal-Lancet*, May, 1946.

## Undiagnosed Pneumonitis

A low-lying pneumonitis of uncertain cause should excite suspicion of a sub-diaphragmatic lesion. A sub-diaphragmatic abscess causes aseptic necrosis and inflammatory adhesion involving the diaphragm and pleura. When rupture occurs, it may be directly into the bronchial lumens and less commonly into the pleural cavity. — WALTMAN WALTERS, M.D., in *J.A.M.A.*, May 11, 1946.

## Polycythemia

The method of treating true polycythemia is to remove 500 cc. of blood two or three times each week until the hematocrit reading is approximately normal. Secondary, or compensatory polycythemia due to congenital heart disease should not be treated by this means.—S. L. VAUGHAN, M.D. in *N.Y. S.J. Med.*, Jan. 1946.

## Impetigo Contagiosa

Impetigo contagiosa frequently occurs in the newborn infant as pustules under the diaper which spread rapidly to other areas of the body, especially in folds of the skin around the neck, axillae and groins. Fever, nephritis, and septicemia may occur.

Oils and ointments should not be used in the folds of the skin in a warm climate. Soap and water should be used in the treatment of bullous impetigo, and all blebs and dead skin should be removed.

A powder made up of 25 per cent sulfadiazine and 25 per cent sulfathiazole in powdered cornstarch is applied with a ball of cotton like a powder puff to the raw surface twice daily.

All blebs, dead skin or crusts must be removed before the sulfonamide powder can be absorbed. In severe cases, penicillin doses of 12,000 units intramuscularly every three hours until the infection subsides is often very effective.

—LEE BIVINGS, M.D., in *S. Med. Jnl.*, June 1946.

## Atomic Bomb Effects

Japanese exposed within 6,000 feet of the atomic bomb explosion suffered from: (1) loss of scalp hair, (2) bleeding from gums, subcutaneous tissues, nose or tonsils, (3) weakness, (4) fever, (5) high sedimentation rates, (6) damage to the granular white cells with granulocytopenia, (7) thrombocyte damage and increasing bleeding time and thrombocytopenia, (8) liver damage with albuminuria, hypoproteinemia, and jaundice. The elevated sedimentation rate gives evidence of extensive tissue destruction within the body, very similar to the illness following extensive irradiation with x-ray.—COL. PAUL KELLER, (MC) in *J.A.M.A.*, June 6, 1946.

## Menopausal Symptoms

Menopausal symptoms are usually controlled by thyroid extract plus phenobarbital. Small doses of stilbestrol or true estrogens may be given. The practice of giving large doses of estrogenic substances in patients of the cancer age is not indicated and may be harmful.—R. J. CROSSEN, M.D. in *S. Med. Jnl.*, June 1946.

## Typhoid and Paratyphoid Fever Despite Immunization

Typhoid and paratyphoid fever may occur despite immunization with standard vaccine. The clinical findings resemble those occurring in unvaccinated subjects. Repeated blood cultures are most diagnostic; agglutination tests often fail to give help.—JEROME T. SYVERTON, (Lieut. MC-USNR) M.D. in *J.A.M.A.*, June 8, 1946.

## X-Ray Serialograph

To permit a number of views to be taken of a given area (serial views), take a sheet of lead 1/16 inches thick and cut out a quarter section as in Fig. 1. The area of the body to be visualized is centered over the unmasked portion of the film. After each exposure, the lead mask is shifted successively to expose each of the four quarters of the film, which is again centered on the area of interest.—S. ALEXANDER, R.T., in *Radiography*, Vol. 21, 1945.

(To prevent exposure of the same area twice, mark each area with a red crayon as soon as it has been exposed.—Ed.)

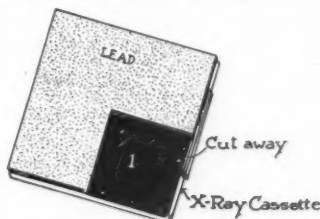


Fig. 1. Easily made Serialograph.  
Fig. 2. Changed location for next exposure on same film.



## DIAGNOSTIC POINTERS

### Penicillin and Miscarriages

Penicillin causes uterine contractions resulting in miscarriages in some pregnant women. Some non-pregnant patients reported menstruating longer and more profusely. — H. M. LEAVITT, M.D. in *J. Ven. Dis. Inform.*, July 1945

### Retarded Growth in Children

Most instances of retarded growth seen in children result from thyroid rather than pituitary deficiency. The absence of the symptoms of cretinism lead to an overlooking of the diagnosis, which can readily be demonstrated by x-ray study of a joint. Thyroid extract brings about a favorable response. It is probable that the excellent response to pituitary extract reported in early literature is due to the fact that dessicated thyroid was usually added.—A. GROLLMAN M.D. in *Essentials of Endocrinology* (Lippincott).

### "Pneumonia"

When a patient suffering from what appears to be pneumonia does not respond to sulfadiazine or other treatment, suspect psittacosis (parrot fever, pigeon fever). — KARL MEYER, M.D. in *The Doctors Talk It Over* (Lederle.)

### The Diagnosis of Chancroid

In small, early lesions that may be chancroid the diagnosis by culture and smear is most likely to be successful. In more advanced lesions, biopsy is feasible and efficient; in such cases, secondary contamination impairs bacteriologic methods. In patients who exhibit inguinal adenopathy without primary genital lesions, the more likely possibility is lymphogranuloma venereum infection.—A. HEYMAN, M.D. in *J.A.M.A.*, Dec. 1, 1945.

### Reading and the "Problem Child"

From nine years on, the ability to read assumes an increasingly important part in nearly every school subject.

A youngster unable to compete with his classmates because he cannot read, finds himself unhappy. He may develop into a behaviour problem (sullenness, negativistic, bullying, bizarre complaints varying from mild headaches, digestive disturbances, fainting spells or convulsive seizures, emotional upsets, "dull and stupid").—T. H. WOLF, M.D., in *Journal Lancet*, May 1945.

### Silicosis

The diagnosis of silicosis rests on three things, 1. a history of adequate exposure to free silica dust, 2. the demonstration of a characteristic nodular in an X-ray film of the chest and 3. a physical examination which reveals very few abnormal signs in most uncomplicated cases.—L. U GARDNER, M.D. *Industrial Hygiene Newsletter*, Univ. Colorado Medical School, December, 1945.

### Edema

Edema: Diagnosis of the initial stages of edema is often difficult. The quantity of retained fluid may exceed 10 pounds without visible pitting edema. The most reliable information concerning fluid retention is obtained by weighing the patient. Intake and output charting is notoriously unreliable.—WILLIAM DRESSLER, M.D. in "Clinical Cardiology" (Harper and Brothers).

### Undiagnosed Sinusitis

Routine X-ray Examination of the paranasal sinuses reveals many cases of unsuspected sinusitis both in children and adults.



## THUMBNAIL THERAPEUTICS

### Treatment of the Head Cold

1. R 2.5% sulfadiazine in  
8 % triethanolamine in  
distilled water (Pickrells solu-  
tion) 60 cc. (? ij)

R Dispense Devilbiss No. 251 atomizer  
Sig.: Spray throat and both nostrils  
every 2 hours.

2. R Pristine hydrochloride 0.1% aqueous  
solution 30 cc. (? i)

Sig.: 3 drops in each nostril every 2  
hours.

(Use 0.05% strength for children).

The nasal spray and drops are used on  
alternate hours, not together.—F. L.  
WEILLE, M.D., (Harvard Medical School).  
in *Med. Clin. N. Am.*, Sept. 1944.

### Spinal Anesthesia for Megacolon

Spinal anesthesia has relieved mega-  
colon and hydronephrosis.—HUGO GRANT,  
M.D. in *Proc. Royal Soc. Med.*, Feb.  
1946.

### Sulfadiazine Subcutaneously

Sodium sulfadiazine may be given sub-  
cutaneously as a 5 percent solution. One  
gram is given daily for each pound of  
body weight, in two doses, 12 hours  
apart.—Kurt Glaser, M.D. in *J. Pediat.*,  
Dec. 1945.

### Unconsciousness After Head Injury

A lumbar puncture should be per-  
formed in all cases in which unconscio-  
usness has occurred. Blood may have pre-  
sented itself in the subarachnoid space.  
If so, the case will be entirely different  
than if it has not. By early lumbar punc-  
ture, we can definitely find out. If the  
cerebral spinal fluid is clear, the patient  
may be spared weeks of bed rest.—  
FOSTER KENNEDY, M.D.

### Throat Swab Solution (for Office Use)

Iod.	0.5 Gm.
Pot. Iodid.	1.0 Gm.
Guaiacol	3.0 cc.
Glycerin qs.	60.0 cc.
M. et ft. Sol.	

Sig.: Apply once or twice a day.—New  
York Physician, June 1945.

### Penicillin-Beeswax-Peanut Oil Injections

One injection of 600,000 units of peni-  
cillin in beeswax and peanut oil is neces-  
sary to keep an assayable level of peni-  
cillin in the blood. A gauge 20 needle 1½  
inches in length must be used and the  
injection should be given into the but-  
tocks. The solution is viscous; it should be  
warmed gently in an incubator or other-  
wise for 30 to 60 minutes (heat will de-  
stroy penicillin, so do not exceed 37°C.).  
—W. M. KIRBY, M.D. in *J.A.M.A.*, Dec. 1,  
1945.

### Pneumococcic Meningitis

Combined penicillin and sulfonamide  
therapy is very effective in pneumococcic  
meningitis. Both must be given in full  
doses.—A. J. WARING, M.D., in *J.A.M.A.*  
Oct. 14, 1945.

### Patellar Excision for Arthritis

Total removal of the patella relieves  
pain and improves knee joint function in  
a majority of patients with traumatic,  
rheumatoid and osteo-arthritis. Results  
are better in cases of osteoarthritis than  
in rheumatoid arthritis.—H. H. YOUNG,  
M.D. (Mayo Clinic) in *Minnesota Med.*,  
Nov. 1945.

(Excision of the fractured patella has  
been successfully carried out for a num-  
ber of years. The patella is not a weight  
bearing bone, neither is it essential for  
a strong flexible knee.—Ed.)

# NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to **CLINICAL MEDICINE**, Waukegan, Ill., is accompanied by a check for the published price of the book.

## Cornell Conferences on Therapy

Edited by Harry Gold, M.D. et al. Mac-Millan, 1946. \$3.25.

The most enlightening book on therapeutics in clinical practice yet published.

The clinician and the pharmacologist meet and discuss freely, for the benefit of all, treatment methods in use, their advantages and deficiencies, their physiologic action, and suggest new methods of therapy. "The Doctor's Bag" alone is worth the price of the volume.

Topics covered include congestive heart failure, hypnotics and sedatives, medical and surgical treatment of pain, mercurial diuretics, common diseases of the eye and treatment of abdominal distention.

## Women in Industry

(Their Health and Efficiency)

By Anna M. Baetjer, Sc.D., Asst. Prof. Physiological Hygiene, John Hopkins University School of Hygiene and Public Health W. B. Saunders, 1946. \$4.00.

An ideal book for the industrial physician or personnel manager who must fit women into certain jobs. With the aid of references from many sources, common questions relating to women at work can be fully answered, for example, "Women have a higher illness rate and lose more time than men, but the excess sickness in women is not due to so-called 'female diseases' but is true of almost all diseases common to men and women, with few exceptions."

## Penicillin

(In the Treatment of Infections)

By Chester S. Keefer, M.D., Professor of Medicine, Boston University School of Medicine, and Donald G. Anderson, M.D., Research Fellow in Medicine, Evans Memorial. Oxford University Press, 1946. \$1.50.

A brief, authenticated description of the methods of administering penicillin and the disease processes which will respond to it. The literature is referred to. Even the busiest practitioner can find time for these few pages; even the laziest one should.

## The Prolongation of Life

By Dr. Alexander A. Bogomolets. Robinson Foundation. Duell, Sloan and Pearce, 1946. \$1.50.

A simplified account of the story behind ACS (anti-reticular cytotoxic serum) as developed by the author. The author believes that connective tissue cells are the most important cells in the body, in relation to aging, healing processes and resistance to infection.

## Psychiatry Today and Tomorrow

By S. Z. Orgel. International Universities Press, 1946. \$6.00.

A misleading title suggestive of a psychiatric philosophy, but actually a rather good text book of Psychiatry.

The author correlates the psychopathology and psychodynamics of each clinical entity wherever possible and adds much in a practical way about the handling of mental cases and psychiatric nursing.

It is a book that could safely be recommended to the relatives of the mental patient for their own enlightenment and mental hygiene.—E.J.D.

## Peptic Ulcer

(Its Diagnosis and Treatment)

By I. W. Held, M.D., Clin. Prof. (Ret.), New York University and A. A. Goldbloom, M.D., Asst. Clin. Prof. Med., New York Medical College. Charles C. Thomas, 1946. \$6.50.

A well written text concerning all aspects of peptic ulcer and the differential diagnosis from cholecystic disease and other confusing conditions. In many instances, actual technic is given, as for studying gastric mucosa by means of one teaspoon of barium mixture. The complications of ulcer are described in detail.

## Diabetes

(A Concise Presentation)

By Henry J. John, M.D., Lt. Col. M.C., Cleveland, Ohio. Mosby, 1946. \$3.25.

A medical crusader presents his ideas concerning the management of diabetes. On the credit side must be mentioned his originality, clinical experience and knowledge of the literature; on the debit side, his dogmatism, i.e. that blood sugar studies should be used in controlling insulin dosage.

All physicians who regard the sugar tolerance curve as pathognomonic are sure to learn much from his discussion and pointing out of errors.

## Handbook of Death

By Robert P. Morhardt, D.O., Professor of Pathology, College of Osteopathic Physicians and Surgeons; Deputy Coroner, County of Los Angeles, Calif. 1946. \$10.00.

A clear analysis of causes of death, the mechanisms involved and how they should be written into the death certificate. Each pathologic condition is discussed with reference to its possible effects.